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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/246,271	02/08/1999	YOERI APTS	450117-4840	5970

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EXAMINER	
HO, ANDY	

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/246,271	APTS ET AL.	
	Examiner	Art Unit	
	Andy Ho	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2005* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. In view of the appeal brief filed on 6/3/2005, PROSECUTION IS HEREBY REOPENED. Responsive to Applicant's arguments, new grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Claims 1-2 and 4-22 have been examined and are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 5-8, 12, 15-16, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer U.S Patent No. 6,393,496 in view of Kanamori U.S Patent No. 6,338,079.

As to claim 1, Schwaderer discloses a method of communication (Fig. 3) between an application program (32, Fig. 3) and a network device driver program (34, Fig. 3) through intermediate structure software (20, and 38, Fig. 3), comprising:

supplying of application data units (sends the data, lines 20-21 column 8) from the application program (application program, line 20 column 8) to a first program object (20, Fig. 3);

performing of first functions (52, Fig. 3) of the first program object on the application data units;

supplying of resulting first data units from the first program object (arrow going from 52 to 38, Fig. 3) to a second program object (38, Fig. 3);

performing of second functions (reads, and translates, lines 22-27 column 8) of the second program object on the first data units;

supplying of the resulting second data units (is sent, line 27 column 8) to the network device driver program (34, Fig. 3).

Schwaderer does not explicitly teach passing references and the data of the data units share the same memory location.

Kanamori teaches a system (line 20 column 1 to line 14 column 2; Fig. 1) of passing data (transfer data, line 21 column 1) between a transferer (the one that transfers data, line 27 column 1) and a transferee (the one that receives data, line 28

column 1) using a technique of passing references pointing to a memory location storing the data, the data is not passed directly between the transferer and the transferee (the transferer stores the transferred data in memory accessible to both programs, then passes a reference to the transferee, which uses the reference to access the transferred data; a reference may be a pointer or a handle which may be converted to a pointer, lines 37-41 column 1). It would have been obvious to apply the teachings of Kanamori to the system of Schwaderer because this will increase the data transfer time since only the reference pointing to the location of the data is being passed between the transferer and the transferee, not the actual data which required longer transfer time. As such, Schwaderer's system could use the technique of Kanamori to perform functions on the data wherein this data is still kept in one memory location. After each time a function is being performed on the data, the data may change but the memory location of the data stays the same.

As to claim 2, Schwaderer as modified further discloses data units are supplied over interconnecting queue-objects (functionality and corresponding modules, lines 47-56 column 9).

As to claim 5, Schwaderer as modified further discloses adding program objects during run time (lines 28-46 column 9).

As to claim 6, Schwaderer as modified further discloses removing program objects during run time (lines 47-64 column 9).

As to claim 7, Schwaderer as modified further discloses after performing of functions of a program object and supplying data units to a further program object, additional functions (50, Fig. 3) of the program object (20, Fig. 3) are performed.

As to claim 8, Schwaderer as modified further discloses adding information (encapsulating the data with the proper headers and trailers, lines 25-26 column 8) to data units.

As to claim 12, Schwaderer as modified further discloses a specialized execution environment for communication (45, and 47, Fig. 3) between the application program (32, Fig. 3) and the network device driver program (12, Fig. 3).

As to claim 15, it is a system claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above.

As to claim 16, Schwaderer as modified further discloses service data units are stored in a memory part using references (lines 46-47 column 8).

As to claim 18, it is a method claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above. Schwaderer as modified further teaches his method can be performed in reverse manner through the read (50, Fig. 3) data (lines 28-30 column 8).

As to claim 21, Schwaderer as modified further discloses the specialized execution environment forms network protocol layers (OSI, line 34 column 10) and the program objects are in respective network protocol layers (lines 30-39 column 10).

4. Claims 9-11, 17, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer in view of Kanamori, and further in view of Tanenbaum (Network Architecture, 1992 publication).

As to claim 9, Schwaderer as modified does not explitcitly teach dividing data units into data unit parts or uniting data unit parts into data units.

Tanenbaum teaches a system of transferring data between network protocol layers wherein a data unit is breaking up into smaller units or these smaller units are joining back into a data unit (last complete paragraph of page 11 to complete page 12; Fig. 1-6). It would have been obvious to apply the teachings of Tanenbaum to the system of Schwaderer because this provides the network layers a control over the message as disclosed by Tanenbaum (last complete paragraph of page 11 to complete page 12).

As to claim 10, Tanenbaum further teaches service data units containing one or more data units (SDU Service Data Unit, line 4 last paragraph page 21).

As to claim 11, Schwaderer as modified further discloses referencing data units with a reference (creates new path ID which references same path, lines 46-47 column 8) to the service data unit.

As to claim 17, Tanenbaum further teaches a SDU manager (IDU, line 3 last paragraph page 21).

As to claim 20, Tanenbaum further teaches the data units are stored in non-contiguous portions of memory (last paragraph page 21 to line 3 page 22).

As to claim 22, it is a method claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above. Tanenbaum further teaches creating a service data unit (SDU, line 4 last paragraph page 21) with a size value and an offset value for each application data unit (second paragraph page 22).

5. Claims 4, 13, and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer in view of Kanamori, and further in view of Jardine U.S Patent No. 5,619,647.

As to claim 4, Schwaderer as modified does not disclose queue-objects priorities. Fishler teaches a scheme where queue are provided with different priorities (line 59 column 8 to line 4 column 9). It would have been obvious to apply the teachings of Jardine to the system of Schwaderer because this provides vital importance to computer systems such as quick sending and receiving messages as disclosed by Jardine (lines 12-23 column 2).

As to claim 13, Jardine further discloses data units are organized in data unit pools (queued messages sent on channels 2 and 3, lines 39-40 column 7) adapted to the specific use thereof (lines 29-43 column 7).

As to claim 19, Jardine further discloses within a queue-object two or more priorities for passing of data units are provided (lines 3-43 column 7).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer in view of Kanamori, and further in view of Phillips U.S Patent No. 6,289,393.

As to claim 14, Schwaderer does not disclose a naming service. Phillips discloses a naming service for mapping between names and object references (lines 47-62 column 8). It would have been obvious to apply the teachings of Phillips to the system of Schwaderer because this would provide appropriate destination for the objects.

Response to Arguments

7. Applicant's arguments filed 6/3/2005 have been fully considered but are moot in view of the new ground(s) rejection.

Applicant's arguments presented issues which required the Examiner to further view the previous rejection. The Examiner conducted a further search regarding the issues mentioned in Applicant's response. Therefore, all arguments regarding the cited references of the previous rejection are moot in view of the new grounds of rejection.

Applicant argued that Schwaderer reference does not teach keeping the data of the data units in the same memory location (Remarks, first complete paragraph page 11 continue to second complete paragraph page 14). In response, Schwaderer reference has been withdrawn from teaching this limitation. All arguments regarding this limitation are moot in view of the cited reference, Kanamori reference.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy Ho whose telephone number is (571) 272-3762. A voice mail service is also available for this number. The examiner can normally be reached on Monday – Friday, 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIM) system. Status information for published applications may be obtained from either Private PAIR or' Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Any response to this action should be mailed to:

Commissioner for Patents

P.O Box 1450

Alexandria, VA 22313-1450

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (571) 273 - 8300.
- OFFICAL faxes must be signed and sent to (571) 273 - 8300.
- NON OFFICAL faxes should not be signed, please send to (571) 273 – 3762

A.H
August 19, 2005

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